



HIGH TECHNOLOGY

HIGH TECHNOLOGY COMPUTER SYSTEMS PTY. LTD.

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1985 - THE YEAR OF COMMUNICATIONS

The introduction of VIATEL, Telecom's public access computer database, has caused an explosion of interest in computer communications. High Tech is again at the forefront with the latest in Modems, Software and service in this exciting expanding area; and don't forget DIALBASE - High Tech's own computer database and electronic shopping service. For those new to this area see our "Laymans Guide To Communications" later in this newsletter.

MICROMODEM III

This new modem plugs directly into the back of your Commodore 64 and into the phone outlet providing 300 and 1200/75 modes to allow communication with VIATEL as well as the more conventional computer databases. The ACME Software MICROMODEM III is an Australian Product with Telecom Approval and sells for only \$299.00.

The MICROMODEM III comes with VIATEL application form and FREE Trial Offers to Microtex 666 and S.T.A.R.S. databases - more on these in a moment.

64 TALK

The ideal software package to complement the MICROMODEM III. 64 TALK has two principal modes of operation - one for VIATEL and one for TERMINAL mode.

VIATEL mode makes use of VIATEL's graphics and colour features. Multiple screens may be stored in the computer's memory and then saved on disk or cassette or printed out. Software can also be downloaded and saved to disk or cassette including Microtex 666 software.

TERMINAL mode features 40 or 80 column modes with adjustable baud rates for communications with the range of established computer databases. Printout and downloading/uploading of software are also available in this mode. Other features include definable function keys, the saving of "Environments" and a large workspace. 64 TALK is on cartridge for ease and speed of use and is only \$79.95

VIATEL

Viatel is a national computer database run by Telecom Australia. Access can be gained from anywhere in Australia for the cost of a local phone call. Once on the system you are charged an hourly rate of \$4.50 per hour. Information on the system comes from a range of

"providers". These include banks, business information companies, newspaper organisations and much more. Most of the information is free, but some is charged for. Before you receive a charged screen you are informed of its cost and then have the option to receive it or not. Viatel also allows for the purchase of software by this method, and shortly general shopping facilities will be included. Electronic mail and Australian telexes can also be sent through Viatel. It is being regarded as the first true public computer database in Australia.

MICROTEX 666

MICROTEX 666 operates under VIATEL and is geared to cater for the Microcomputer user with information, news and software. Microtex is a computer based magazine - brought to you by the producers of Australian Personal Computer and P.C. Games. Microtex is mainly geared for Commodore computers at present but other computers will also be catered for. There is at time of writing approximately 100 Commodore 64 programs on Microtex which you can download.

S.T.A.R.S.

The Scholastic Text And Retrieval System is a breakthrough for schools or anyone needing to research any subject at all. S.T.A.R.S. is a super encyclopaedia on computer. Type in the subject you wish information on and S.T.A.R.S. will tell you what articles it has from its repertoire of millions of items. You then select the article(s) you wish. Subject definition can be as broad or as well defined as you wish. It's information at your fingertips.

THE AUSTRALIAN BEGINNING (TAB)

One of Australia's longer running databases, TAB is a 300 baud database but can also be accessed at 1200/75 via Austpac. Services include Bulletin boards, Electronic Mail, Electronic Shopping, Software bank, Information services, Telex facilities and user to user Chat mode. Membership is a \$50 once only joining fee plus an hourly log on charge. Memberships are available from High Tech.

DIALBASE

High Tech's own computer database is still going strong. Dialbase allows you to keep up to date with the latest information, send mail

to other members or to High Tech and shop from your own home computer. You can apply now for membership on the enclosed application form.

\$100 REBATE

To celebrate the five millionth Commodore 64, when you become the proud owner of a Commodore 64, Family Pack or SX 64 portable computer from High Tech you get a \$100 rebate for any old computer, calculator, video game or typewriter you wish to trade in (and they don't even have to work!). Come in now for the details - offer only valid till 30th June 1985.

64 NET

Also of special interest to educational users, this soon to be released network system boasts features found on much more expensive systems. These include computer to computer communication and program transfer - at high speed. Programs may be 'broadcast' to all or any computer on the system. The teacher maintains control over the network, with the ability to disable computer to computer communication but still be able to retrieve screens and programs and even be able to operate other computers remotely.

UP THERE CAZALY

All you footy fans can now play AUSSIE RULES in your own home (without breaking the furniture) with ACME SOFTWARE'S new program - CAZALY, the Aussie Rules Footy Game. Great graphics and sound makes this game a Classic worthy of mention with some of the best games ever written. Its so good it has received approval status by the VFL and the Football Leagues of South Australia, Western Australia, Tasmania and Queensland. CAZALY is \$49.95 and we are expecting stocks late June.

COLOUR YOUR LIFE

We have limited stocks of Commodore's MCS 801 Colour Printer. The four colour ribbon allows high resolution pictures to be produced in full colour. The MCS 801 has all the features of the 801 plus colour. All for only \$699.00

COMMODORES NEW PC10

The PC10 is a true IBM compatible machine which will run the wide range of MS-DOS software that is now available. This is the machine that the small businessman has been waiting for. It combines the power and flexibility of an MS-DOS machine with the reliability and quality of a West German product with the support and price that only Commodore can give. For around \$3600 you will get 256K of RAM, two 5.25" disk drives, centronics and RS232 ports and a high resolution monitor.

COMMODORES NEW C16 AND PLUS/4

The Commodore 16 and PLUS/4 represent a leap forward in flexibility and ease of use. The C16 has 16K with 12.5K free for BASIC of RAM while the PLUS/4 has 64K of RAM with a massive 60K free for BASIC. Both computers have a very powerful BASIC with Graphic and Sound commands e.g. paint, line, circle, Toolkit commands e.g. renumber, auto Structured BASIC commands e.g. do..until/loop, print using, print at, if..then..else and a built in Machine Code Monitor.

The PLUS/4 also has four built in software programs for Word Processing, Spreadsheet, Database and Graphics.

Both computers make use of Commodore's range of printers and disk drive.

Come in now for a demo and our special pricing on these versatile computers.

SOFTWARE SOFTWARE

New software for the Commodore 64 is still flowing in at a rapid rate:

SUPER HUEY

For those that are into flight simulation programs - this one in a helicopter is a must. Training and three missions of Rescue, Exploration and Combat. Your joystick gives you full control over throttle, rudder, cyclic and collective pitch! Fly it and you'll be hooked. Only \$29.95.

DALLAS QUEST

For all you DALLAS addicts, now you can join in with J.R., Sue Ellen and the whole Ewing clan in uncovering the location of a multimillion dollar South American Oil Field all for only \$39.95.

ACTION ADVENTURES

The range of arcade action adventures with high res graphics is expanding fast - new titles include SPY VS SPY (MAD magazine's official) and CONAN. \$29.95 and \$39.95 respectively.

BATTLE FOR MIDWAY

This is a true war simulation game where strategy and tactics are required. Staged six months after the attack on Pearl Harbour, the outcome of The Battle for Midway could have changed the course of World War II.

STELLAR 7

This excellent arcade game features superb 3-D vector graphics and is very reminiscent of the classic arcade game Battle Zone.

TELARIUM ADVENTURES

Just released is a range of mind boggling graphic adventures based on best selling Science Fiction novels. Comments received so far suggest that these are the best adventure games ever written. They are all multi-disk

with the following titles now available:
Fahrenheit 451 (Ray Bradbury), Rendezvous with Rama (Arthur C. Clarke), Dragonworld (Preiss/Reaves), Amazon (Michael Crichton) and Shadowkeep (Alan Dean Foster). Disk only at \$49.95 each.

HITCH HIKERS GUIDE TO THE GALAXY WOW!

High Tech is Hitched (pardon the pun)!
If we can prise Rick away from Hitch Hikers, High Tech will be running a help section on Dialbase. Definitely not a beginners adventure, but when you're ready for it \$59.95 will keep you awake at night too.

LAYMANS GUIDE TO COMMUNICATIONS

Extracted from ACME Softwares' 64TALK manual.
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WHAT IS COMPUTER COMMUNICATIONS?

Computer communications is where there is a requirement to transfer information from one computer to another. Initially computer communications was concerned with linking terminals to a central computer (usually in the same building) and was accomplished with just a few wires. As distances and speeds increased and there were requirements for independent computers to communicate with each other more sophisticated methods were required - which resulted in the Modem.

WHAT IS A MODEM?

Modem is an abbreviation for MOdulator/DEModulator. The process involves the sending of a tone and varying it in sympathy to the signal we wish to send - this process is called modulation. The demodulation process is the reverse of this - taking the tone and from the variations recreating the required signal. By using this method signals can be sent reliably around the world and is the basic method also employed in radio and television transmission.

THE ROLE OF SOFTWARE

The communications software (or program) has several functions and can range from the most basic to highly sophisticated and flexible. Fundamentally they all have to take the information you want to send and convert it into a form that is acceptable to the computer at the other end and then stream it out to the modem. Likewise, the information coming from the modem has to be interpreted for use in your computer.

The software can also have features to allow you to make use of disk drives, printers, etc.

SERIAL TRANSMISSION

As each character is represented in the computer as a code, when a character is to be transmitted each part (or bit) of the code is sent one after the other - this is known as serial transfer.

COMMUNICATIONS STANDARDS

There are several commonly used communications modes, but no universal standard. To allow for this, the software (and Modem) are adjustable to allow you to communicate with the database of your choice. These options are:

BAUD RATE

This is the speed at which data is transferred. 300/300 is the most commonly used baud rate and means that 300 bits of information can be transferred in a second, either transmitted or received. Split baud rates are also in use, e.g. 1200/75 which means that information can be received at 1200 bits of information per second but the backchannel (or what is being transmitted) is at only 75 bits per second. This is the baud rate used by Telecoms' Viatel. The modem and software must be designed to cater for any specific baud rate you wish to use.

DUPLEX

There are two modes available - Half or Full. In full duplex everything that is transmitted is retransmitted back by the other computer (mainly for error checking). This means that everything you see on your screen has been received off the line. In half duplex transmitted information is not retransmitted and so the software must display what is typed as well as the information being received.

WORD LENGTH

The character code may be made up of anywhere between 5 and 8 bits, this is called the word length. The most commonly used codes are called the ASCII (American Standard Code for Information Interchange) character set, which uses a 7 bit code.

START BIT

To signify the beginning of a character a Start Bit is sent followed by the character code.

STOP BIT

To signify the end of the character code a Stop Bit is sent. Some computer databases require two stop bits, which is selected by the software.

PARITY

To check if an error has occurred in the transmission process a parity bit is usually sent. This bit is derived from the character code and the options are odd, even, mark or space depending on the computer you are communicating with. Some do not use a parity bit at all.

CARRIAGE RETURN/LINE FEED

The RETURN key on your Commodore 64 performs a carriage return with line feed, i.e. it brings the cursor to the beginning of the line and moves it down to the next line. Most databases send a carriage return without line feed, so the software must take care of this. Automatic line feed with carriage return can be turned on or off to cater for the requirements of the specific database.

COLUMN WIDTH

Information may be sent with the intention for it to be displayed neatly on a 40, 80 or some other width display. The most common terminal display is 80 columns although 40 columns is coming into prevalent use (e.g. Viatel) as it can be easily read from a domestic quality television screen.

PRESTEL

Prestel is the English computer database system that Viatel is based on, and has its own specific characters and graphics. Several other databases in Australia are also adopting Prestel graphics in their systems.

TRANSMISSION RATE

The number of bits of information required to send one character can vary over a range of about 7 to 12 bits, so that the baud rate is only part of the story when looking at transmission rate.

UPLOAD/DOWNLOAD SOFTWARE

The process of acquiring programs from a database is called downloading. Similarly, transferring programs from your system to another via the modem is uploading.

ENVIRONMENT

The environment encompasses all the options mentioned above - Baud Rate, Parity, Duplex, Stop Bits, Word Length, Carriage Return Line Feed, Column Width, etc.

Some programs allow the environment to be saved to tape or disk so that the next time communication with a specific database is required the relevant environment may be loaded and everything is already set up correctly for it.

WORKSPACE

The workspace is an area set aside in memory to record the information that is transmitted and received in a communication session and allows information that is required for longer term use to be studied at length (usually later off line), to be saved and/or printed out.

The workspace can be toggled on and off so that only those parts of the session that are required will be stored.

The workspace can also be used to load and send prepared files such as telexes and electronic mail.

AUTHORISED SERVICE CENTRE

COMMODORE 64

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